

Applicant: David K. Mesecher
Application No.: 10/068,718

IN THE CLAIMS

1. (Newly Amended) A base station having a plurality of transmitting antennas, the base station comprising:

means for transmitting from each transmitting antenna, a reference signal having a code uniquely associated with that antenna, wherein the transmitted reference signals are not delayed with respect to each other; and

means for transmitting a data signal such that different spread spectrum versions of the data signal are transmitted from each antenna, each version having a different code for the respective transmitting antenna.

2. (Original) The base station of claim 1 wherein the means for transmitting a data signal transmits a plurality of data signals, such that spread spectrum versions of each data signal are transmitted from each antenna, each version having a different code for the respective transmitting antenna.

3. (Original) The base station of claim 2 wherein each version has a different code than the code for any of the versions of the plurality of data signals.

4. (Original) The base station of claim 1 wherein the base station transmissions are in a time division duplex format.

5. (Newly Amended) A base station comprising:

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a plurality of transmitting antennas for transmitting a plurality of reference signals and data signal versions, each transmitting antenna operatively coupled to a reference signal generator and a mixer, wherein the transmitted reference signals are not delayed with respect to each other;

a plurality of reference signal generators, each reference signal generator generating a code uniquely associated with its operatively coupled to antenna;

a data signal generator for producing a data signal; and

a plurality of mixers for producing the plurality of the data signal versions, each mixer for mixing the data signal with a different code to produce one of the versions for that mixer's coupled to antenna.

6. (Original) The base station of claim 5 further comprising at least one additional data signal generator for producing at least one additional data signal; for each at least one additional data signal generator, a plurality of mixers for producing a plurality of versions of that at least one additional data signal, each version having a different code for transmission over a respective transmitting antenna of the transmitting antennas.

7. (Original) The base station of claim 5 wherein the base stations transmissions are in a time division duplex format.

8.-16. (Canceled).